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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/673,778

09/29/2003

Volkert A. Zeijlemaker

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EXAMINER

SMITH, RUTH S

ART UNIT

PAPER NUMBER

3737

MAIL DATE

DELIVERY MODE

02/16/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/673,778	Applicant(s) ZEIJLEMAKER, VOLKERT A.	
	Examiner Ruth S. Smith	Art Unit 3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7-12,15,17-21,23-33 and 39-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7-12,15,17-21,23-33 and 39-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-5, 7-12,15,17-21,23-33,39-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foster et al (6,925,328) in view of Weisner et al (7,024,249) or Burnes et al (2003/0195571) or Ferek-Petric (2003/0204161). Foster et al disclose an IMD in combination with MRI, whereby some of the components of the IMD are disabled during an MRI scanning session. While Foster et al is silent with respect to the specific components of the circuitry of the IMD, the use of an amplifier is an inherent part of its circuitry and the specific components which are disabled during an MRI scanning session would have been an obvious design choice in view of the lack of any showing of criticality or unexpected results. The IMD can include an implantable pacemaker. The MRI sends out signals that are detected by the IMD (see for example, figure 5) and the signals are evaluated to determine whether or not to disable portions of the IMD. The circuitry of figure 5 includes means for activating a trigger signal. The trigger signal causes the IMD to be deactivated. Column 11 in Foster et al disclose that the trigger signals precede triggering of the activation of the Rf coils of the MRI scanner. MRI inherently includes application of gradient magnetic fields. Foster et al fails to disclose the use of wireless telemetry to send control signals to the IMD. The use of wireless control signals is a well known expedient in the art as shown for example in Weisner et al, Burnes et al and Ferek-Petric. Weisner et al disclose the use of control signals to control implantable devices through wireless telemetry. Burnes et al and Ferek-Petric each disclose the use of wireless telemetry to control and implantable device. It would have been obvious to one skilled in the art to have modified Foster et al such that the control signals used to indicate the activation of the MRI pulse sequence are sent using wireless telemetry. Such a modification merely involves the substitution of one known

means of signal transmission for another. The modification of Foster et al to include wireless control would include having the control signals come from the MRI system controller. The MRI controller would include a “programmer device” as set forth in claim 4. With regard to claims 5, 7-8, Foster et al disclose timing of the IMD with the MRI system. With regard to claims 9,10, Foster et al disclose that the components are disabled for a time period and then are re-enabled following that time period. A signal received from the MRI system would inherently define “blanking” of components of the MRI system. Foster et al disclose the use of a counter which triggers a re-set function to re-enable the components of the IMD after a predetermined period of time. The inventive concept disclosed by Foster et al is to ensure that the IMD doesn’t operate during the MRI scanning session. In order to ensure that the blanking is activated during the EM bursts and taking into consideration possible system delays, it would have been obvious to one skilled in the art to have slightly enlarged the time period for blanking to ensure proper results.

Response to Arguments

Applicant's arguments filed November 9, 2009 have been fully considered but they are not persuasive. Applicant fails to provide any indication as to why Burnes et al or Ferek-Petric are disqualified as prior art under 35 USC 103 and therefore the rejection of claims including these references is maintained. The applicant's comments that Foster et al does not disclose the use of a control signal are not understood. Foster et al clearly disclose that the circuitry of the MR instrumentation activates a trigger voltage. Thereafter (approx. 3 seconds) the circuitry activates transmission of Rf coil pulses. The trigger voltage is used to deactivate the IMD. The trigger voltage causes the parallel resonant circuit to be formed which functions as an open switch at resonant frequencies of the circuit. This is considered to provide a means for blanking the IMD in response to a control signal because the IMD is eventually deactivated as a result of the control signal. With respect to applicant's arguing related to the use of Weisner, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir.

1986). The use of wireless telemetry is old and well known and the modification of Foster et al to include wireless telemetry would have been obvious in that it involves the substitution of one well known type of signal transmission for another and would yield predictable results.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth S. Smith whose telephone number is 571-272-4745. The examiner can normally be reached on M-F 7:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3737

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ruth S. Smith/
Primary Examiner, Art Unit 3737

RSS